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(54) Title: METHODS FOR MAKING (-) -MENTHOL AND OXYGENATED MENTHANE COMPOUNDS

(57) **Abstract:** Processes are described for the preparation of (-) menthol from 4R- (+) -menthene or from (+) -limonene, wherein the starting material is hydroxylated using a catalyst comprising at least one polypeptide to form trans-piperitol or trans-isopiperitenol, respectively, followed by hydrogenation to form (-) -menthol.

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